‘It is becoming clearer that nuclear weapons are no longer a means of achieving security; in fact with every passing year they make our security more precarious.’

Mikhail Gorbachev, former Russian President, letter to the Wall Street Journal, 31 January 2007
• ‘We believe that whatever stabilising impact nuclear weapons may have had during the Cold War, in the new security environment of the 21st century any residual benefits of these arsenals are overshadowed by the growing risks of proliferation and terrorism.’

• Global Zero – representing the views of 100 ex-defence and foreign ministers and ex-military leaders worldwide
‘It is time to... stop the spread of nuclear weapons and to reduce the arsenals from another era.

This is the moment to begin the work of seeking the peace of a world without nuclear weapons.’

Barack Obama, US President, speech in Berlin, July 2008
The government must ask whether it can afford Trident or whether it can afford to give up what it’s got to give up in order to afford Trident.’

Lord Ramsbotham, former Adjutant-General
8 January 2009
IN THE FIRING LINE

AN INVESTIGATION INTO THE HIDDEN COST OF THE SUPERCARRIER PROJECT AND REPLACING TRIDENT

GREENPEACE
‘the failure to inform parliament or this committee until 1980 that a major programme on this scale was being undertaken, or that its cost was turning out to be so far in excess of that originally expected, is quite unacceptable. Full accountability to parliament in future is imperative’.

Ministry of Defence Chevaline Improvement to the Polaris Missile System, Ninth Report from the Committee of Public Accounts, HC 269 of Session 1981-82
• **THE OFFICIAL GOVERNMENT PROJECT COSTS**

The government’s official figure for the procurement costs of replacing the Trident system, given in the 2006 Defence White Paper, is £15–20bn at 2006–07 prices (equivalent to roughly £15.8–21bn today). They include:

• the cost of designing and building four new submarines, estimated at £11–14bn

• the cost of developing new warheads, estimated at £2–3bn, and

• estimated infrastructure costs of £2–3bn.

The Defence White Paper stated that these procurement costs would take up 3% of the defence budget each year ‘over the main period of expenditure’.
Mr. Moonie: There are currently some 1,509 full-time armed forces posts in the Ministry of Defence and its agencies for tasks directly related to the nuclear deterrent.

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though not all posts are filled at any given time. In addition, a number of other service personnel spend some of their time directly or indirectly on such tasks but comprehensive data are not held centrally and could be provided only at disproportionate cost.

David Hamilton: To ask the Secretary of State for Defence if he will estimate the cost (a) of retaining the nuclear deterrent by the UK in each year since 1990 and (b) of being a part of NATO and the percentage this was of the defence budget in each year since 1997. [60283]

Mr. Hoon: The estimated total acquisition cost of the Trident programme is £9,764 million. As described in the Strategic Defence Review Supporting Essay 5 of July 1998, a copy of which is in the Library of the House, the average annual operating cost of the Trident force is expected to be around £280 million. As a percentage of the defence budget, the capital and running costs for retaining the United Kingdom's nuclear deterrent for each year since 1990 were as follows:

<table>
<thead>
<tr>
<th>Financial year</th>
<th>Capital costs</th>
<th>Running costs</th>
</tr>
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<tbody>
<tr>
<td>1990–91</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>1991–92</td>
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<td>1993–94</td>
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<tr>
<td>2000–01</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

These figures do not include the costs of the WE177 free-fall nuclear bomb and Lance nuclear artillery system that went out of service in 1997–98 and 1992–1993 respectively.

The United Kingdom's contributions to NATO's Security Investment Programme and Military Budget are funded by the Defence Budget. For each year since 1997, these were as follows:
Q345 Chairman: Secretary of State, you said that the through-life costs of the submarines would be about four to six per cent of the defence budget. I remember the days when it used to be one to two per cent of the defence budget. Is that an indication of a declining defence budget or of an increasing cost of submarines and would it be possible for you to give us the figures as opposed to a percentage of an assumed defence budget?

• Des Browne: I am perfectly content, Chairman, to do the best that we can in relation to that, subject to the limitations that we have already had articulated about our ability to be able to identify particularly fixed costs for capability other than the SSBNs. I am content to do that, but I do know that we went through an exercise recently to make sure that we were identifying as accurately as we could the costs that are associated with our nuclear weapons systems and that caused us to revise information that previous governments may have put into the public domain.
Do the in-service running costs include:

• a percentage of the building costs of the Astute submarines -- one role for which will be supporting the patrols of the Trident replacement submarine?

• US-UK cooperation -- for example, the costs of using US satellites for targeting, the costs of maintaining a liaison office at STRATCOM and the costs of regular research visits to the US and potential investments in their research facilities (like the UK's past investment in the National Ignition Facility)?

• an adequate allowance for decommissioning the new submarines and dismantling both future warheads and redundant facilities at AWE, and storing the arising nuclear waste?

• an adequate percentage of the running costs for the Faslane and Couplort bases -- home to the nuclear submarines and their missiles?
• **SOME EXAMPLES OF DISCREPANCIES IN TRIDENT REPLACEMENT ESTIMATES**

• **MISSING**: the £250m costs of extending the life of the current Trident missiles.

• **MISSING**: the estimated £3bn cost of buying next-generation missiles when the Trident missiles are ultimately withdrawn from service midway through the life of the replacement submarines.

• **MISSING**: a percentage of the substantial cost of modernising the Atomic Weapons Establishment (AWE) – a modernisation that is in large part necessitated by the requirement to develop new warheads for the new Trident system.
Concerns raised in 2008, National Audit Office (NAO) report on Trident replacement

Areas of concern the report highlights include:

• the fact that basing estimates on the cost of the existing system fails to take into account a number of factors, including ‘variations in the operational requirement, developments in the submarine industry and expected profit margins and fluctuations in the cost of materials’

• uncertainty in the incorporation of the effects of inflation into cost estimates

• the fact that existing cost estimates include no provision for Value Added Tax, even though the tax treatment of the programme has not yet been determined

• the assumption that the pound/dollar exchange rate will remain constant throughout the programme. This is important as an estimated 30% of work connected to the acquisition of the Trident programme was undertaken in the US, a situation unlikely to change for any successor system, and

• the danger that estimates may not include adequate contingency funds.
How can it be that it takes 20 years to buy a ship, or aircraft, or tank? Why does it always seem to cost at least twice what was thought? Even worse, at the end of the wait, why does it never quite seem to do what it was supposed to? The issue is a mystery, wrapped in an enigma, shrouded in an acronym.‘

Ministry of Defence report, Produced by Bernard Gray, leaked to the Times, 24 August 2009
MISSING:
£10.5-15.5bn
Additional procurement costs
Evidence shows that generational systems replacements double in cost

MISSING:
£250m
Trident D5 missile life extension

MISSING:
£3bn
Procurement of next-generation missiles

TOTAL
£97bn

UNCLEAR COSTS
UNCLEAR:
£?
New facilities at AWE
What percentage of the estimated £7.5bn additional investment at AWE up to 2015 should be added to the cost of replacing Trident?

UNCLEAR:
£?
Further in-service running costs
Do the in-service running costs include:
- A percentage of the building costs of the Astute submarines - one role for which will be supporting the patrols of the Trident replacement submarine?
- US-UK cooperation - for example, the costs of using US satellites for targeting, the costs of maintaining a liaison office at STRATCOM and the costs of regular research visits to the US and potential investments in their research facilities (like the UK’s past investment in the National Ignition Facility)?
- an adequate allowance for decommissioning the new submarines and dismantling both future warheads and redundant facilities at AWE, and storing the arising nuclear waste?
- an adequate percentage of the running costs for the Faslane and Coulport bases - home to the nuclear submarines and their missiles?

GOVERNMENT FIGURES
£15-20bn
Procurement costs
- Submarines £11-14bn
- Warheads £2-3bn
- Infrastructure £2-3bn

£56.9-68.3bn
In-service running costs
GREENPEACE IS CALLING FOR THIS GOVERNMENT TO:

- suspend any further funding of the Trident replacement, including any additional investment in replacement submarine designs, and any investment in AWE facilities relevant to the development of new warheads.

- release a detailed breakdown of all projected procurement and in-service running costs of the Trident replacement including the costs associated with providing AWE with the technical capacity to design and manufacture a new warhead.

GREENPEACE IS CALLING ON THE INCOMING GOVERNMENT TO:

- conduct a full foreign policy and strategic defence review that: re-examines the rationale for Trident replacement and considers a range of options for Britain’s future nuclear weapons strategy including non-replacement and the concept of extending the life of existing submarines by taking them off continual patrol and storing their nuclear warheads in secure onshore sites considers both projects in the light of alternative uses for equivalent defence (or other) expenditure; thoroughly examines the implications of climate change for global security issues

- create a transparent accounting procedure for all military expenditure.

- actively promote the aims of both the Nuclear Non-Proliferation Treaty and the Global Zero initiative.